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	L21	L14 and @py<2003	0				
	L20	L13 and @py<2003	6				
	L19	L12 and @py<2003	1				
	L18	L11 and @py<2003	0				
	L17	L10 and @py<2003	1				
	L16	L12 and therapeutic	42				
	L15	L14 and therapeutic	14				
	L14	L9 and mesodermal	15				
	L13	L9 and endothelial	60				
	L12	L9 and nerve	44				
	L11	L9 and myocardial	16				
	L10	L9 and mesenchymal	48				
	L9	L8 and 16	63				
	L8	L7 and l4	141				
	L7	cd45 and collagen	1071				
	L6	L5 and l4	148				
	L5	cd14 and cd34	1132				
	. L4	monocyte and multipotent	683				
$DB=DWPI,JPAB,EPAB,USOC,USPT,PGPB;\ PLUR=YES;\ OP=ADJ$							
	L3	KODAMA-HIROAKI!	109				
	L2	KUWANA-MASATAKA!	12				
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1/25/07
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FILE 'MEDLINE' ENTERED AT 20:23:40 ON 25 JAN 2007

FILE 'BIOSIS' ENTERED AT 20:23:40 ON 25 JAN 2007

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=> s monocyte and multipotent cell

L1 20 MONOCYTE AND MULTIPOTENT CELL

=> s cd14 and cd34

L2 1499 CD14 AND CD34

=> s l1 and l2

L3 1 L1 AND L2

=> s cd45 and collagen

L4 270 CD45 AND COLLAGEN

=> s l1 and l4

L5 0 L1 AND L4

=> s l1 and differentiation

L6 13 L1 AND DIFFERENTIATION

=> disp 16 ibib abs 1-13

L6 ANSWER 1 OF 13 MEDLINE on STN ACCESSION NUMBER: 2001696669 MEDLINE DOCUMENT NUMBER: PubMed ID: 11745340

TITLE: Distinct and regulated expression of Notch receptors in

hematopoietic lineages and during myeloid

differentiation.

AUTHOR: Jonsson J I; Xiang Z; Pettersson M; Lardelli M; Nilsson G

CORPORATE SOURCE: Department of Laboratory Medicine, Lund University,

University Hospital MAS, Malmo, Sweden..

Jan-Ingvar.Jonsson@molmed.mas.lu.se

SOURCE: European journal of immunology, (2001 Nov) Vol. 31, No. 11,

pp. 3240-7.

Journal code: 1273201. ISSN: 0014-2980. Germany: Germany, Federal Republic of Journal; Article; (JOURNAL ARTICLE)

DOCUMENT TYPE: LANGUAGE:

PUB. COUNTRY:

IGUAGE: English

FILE SEGMENT: Priority Journals ENTRY MONTH: 200201

ENTRY DATE: Entered STN: 18 Dec 2001

Last Updated on STN: 25 Jan 2002

Entered Medline: 3 Jan 2002

Hematopoietic development is a delicate balance of cell fate decisions in AB multipotent cells between self-renewal and differentiation. In multiple developmental systems, the Notch receptors are important factors regulating these processes. Hematopoietic progenitor cells have been shown to express Notch1, and studies with an activated intracellular form has revealed a functional role. To assess the function of other Notch members in hematopoiesis, we investigated the expression pattern of Notch1, Notch2, and Notch3 in hematopoietic lineages at the level of RNA and protein. We demonstrate that Notch1 and Notch2 are expressed in multiple lineages, and that Notch1 in particular appears to be regulated during myeloid differentiation. Notch1 was up-regulated and expressed at high levels in adherent macrophages. Mast cells expressed only low levels of Notch1 mRNA whereas Notch2 mRNA was highly expressed. In addition we could detect Notch3 mRNA and protein in cell lines representing mast cell progenitors. These expression patterns imply that the different Notch genes may have very distinct functions

during hematopoiesis, and that Notch3 could be a specific regulator of Can 10/549707

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1/28/07 A9

mast cell development. The finding that Notch1 was up-regulated in the adherent cells developing from a multipotent progenitor cell line suggests that this protein may posses dual functions in hematopoiesis, i.e. at the stage of cell fate decision, and at the maturation stage of monocytes when adhesion to the specific microenvironment is accomplished.

L6 ANSWER 2 OF 13 MEDLINE ON STN ACCESSION NUMBER: 2000041925 MEDLINE DOCUMENT NUMBER: PubMed ID: 10576506

TITLE: Differential activity of glycosaminoglycans on

colony-forming cells from cord blood. Preliminary results.

AUTHOR: Da Prato I; Valentini P; Testi R; Volpi N; Conte A; Petrini

CORPORATE SOURCE: Oncology Department, University of Pisa, Italy.

SOURCE: Leukemia research, (1999 Nov) Vol. 23, No. 11, pp. 1015-9.

Journal code: 7706787. ISSN: 0145-2126.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199912

ENTRY DATE: Entered STN: 13 Jan 2000

Last Updated on STN: 2 May 2002 Entered Medline: 8 Dec 1999

Heparin, heparan sulfate and chondroitin sulfate were evaluated for their AB possible role on proliferation and differentiation of hematological precursor cells from cord blood. For these purposes, different concentrations of glycosaminoglycans were added to methyl-cellulose in colony assay performed with human cord blood derived cells. A volume of 10 microg/ml heparin induces a significant increase of both granulocyte-monocyte and granulocyte colonies, and a decrease of erythroid-colonies, more evident in the presence of 100 microg/ml. Heparan sulfate-treatment induces a significant increase of all granulocyte-monocyte colonies derived from CFU-granulocytemonocyte, CFU-granulocyte and CFU-monocyte precursors. A significant decrease of multipotent cells was also observed. On the other hand, chondroitin sulfate induces an increase of granulocyte-colonies and a decrease of erythroid-colonies. Glycosaminoglycans with different structure may be useful to increase the number of specific colonies. The selective and differential binding of glycosaminoglycans with several growth factors and the regulation of their activities is discussed.

L6 ANSWER 3 OF 13 MEDLINE on STN ACCESSION NUMBER: 96145215 MEDLINE DOCUMENT NUMBER: PubMed ID: 8558943

TITLE: Mutant ras promotes haemopoietic cell proliferation or

differentiation in a cell-specific manner.

AUTHOR: Maher J; Baker D; Dibb N; Roberts I

CORPORATE SOURCE: Department of Haematology, Royal Postgraduate Medical

School, Hammersmith Hospital, London, UK.

SOURCE: Leukemia : official journal of the Leukemia Society of

America, Leukemia Research Fund, U.K, (1996 Jan) Vol. 10,

No. 1, pp. 83-90.

Journal code: 8704895. ISSN: 0887-6924.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199602

ENTRY DATE: Entered STN: 12 Mar 1996

Last Updated on STN: 3 Feb 1997 Entered Medline: 26 Feb 1996 AB The ras gene products play a fundamental role in signal transduction in haemopoiesis. In this study, we have examined the effects of ras upon haemopoietic cell proliferation and differentiation, using two human cell lines which represent different stages of haemopoietic cell maturation. When a mutant H12-ras gene (codon 12: gly-->asp) was expressed in the monoblastic cell line, U937, marked inhibition of growth was seen together with morphological, functional and immunophenotypic evidence of monocytic maturation. Infection of U937 cells with a c-myc retrovirus produced similar changes strongly suggesting that Myc plays an important role in this action of Ras. By contrast, expression of H12-ras promoted factor-independent growth of the multipotent cell line, TF-1. Furthermore, mutant ras dramatically enhanced the growth of TF-1 cells in the presence of added GM-CSF or erythropoietin, but did not influence the state of differentiation of these cells. These data clearly indicate that in haemopoietic cells, Ras may promote either proliferation or differentiation depending upon cell type and/or state of maturation.

ANSWER 4 OF 13 MEDLINE on STN ACCESSION NUMBER: 95267050 MEDLINE DOCUMENT NUMBER: PubMed ID: 7748171

TITLE: Retinoic acid and the differentiation of

lymphohaemopoietic stem cells.

AUTHOR: Gottgens B; Green A R

CORPORATE SOURCE: Department of Haematology, Cambridge University, MRC

Centre, UK.

BioEssays : news and reviews in molecular, cellular and SOURCE:

developmental biology, (1995 Mar) Vol. 17, No. 3, pp.

187-9. Ref: 21

Journal code: 8510851. ISSN: 0265-9247.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: English

Priority Journals FILE SEGMENT:

ENTRY MONTH: 199506

ENTRY DATE: Entered STN: 21 Jun 1995

Last Updated on STN: 21 Jun 1995

Entered Medline: 9 Jun 1995

The study of haemopoiesis enables us to address one of the central AΒ questions of developmental biology, concerning the molecular mechanisms by which a multipotent cell develops into distinct differentiated progeny. Recent work suggests specific roles for retinoic acid receptors at two distinct stages of haemopoiesis. Continuous cell lines of lymphohaemopoietic progenitors were established by infection with a retrovirus containing a dominant negative retinoic acid receptor. The cell lines depend on stem cell factor for their proliferation and can be induced to diffentiate into B-lymphocytes, erythrocytes, neutrophils, monocytes, mast cells and megakaryocytes. Since lymphohaemopoietic progenitors represent less than 0.01% of nucleated marrow cells, immortalised progenitors provide a valuable system with which to study haemopoiesis on a molecular level.

L6 ANSWER 5 OF 13 MEDLINE on STN ACCESSION NUMBER: 93257668 MEDLINE DOCUMENT NUMBER: PubMed ID: 7683918

TITLE: Expression of human colony-stimulating factor-1 (CSF-1)

receptor in murine pluripotent hematopoietic NFS-60 cells induces long-term proliferation in response to CSF-1

without loss of erythroid differentiation

potential.

AUTHOR: Bourette R P; Mouchiroud G; Ouazana R; Morle F; Godet J;

CORPORATE SOURCE: Centre de Genetique Moleculaire et Cellulaire, UMR CNRS no. 106, Universite Claude Bernard Lyon I, Villeurbanne,

France.

SOURCE: Blood, (1993 May 15) Vol. 81, No. 10, pp. 2511-20.

Journal code: 7603509. ISSN: 0006-4971.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals

ENTRY MONTH: 199306

ENTRY DATE: Entered STN: 25 Jun 1993

Last Updated on STN: 3 Mar 2000 Entered Medline: 11 Jun 1993

NFS-60 and FDCP-Mix cells are interleukin-3--dependent multipotent AB hematopoietic cells that can differentiate in vitro into mature myeloid and erythroid cells. Retrovirus-mediated transfer of the human colony-stimulating factor-1 (CSF-1) receptor gene (c-fms) enabled NFS-60 cells but not FDCP-Mix cells to proliferate in response to CSF-1. The phenotype of NFS-60 cells expressing the human CSF-1 receptor (CSF-1R) grown in CSF-1 did not grossly differ from that of original NFS-60 as assessed by cytochemical and surface markers. Importantly, these cells retained their erythroid potentiality. In contrast, a CSF-1-dependent variant of NFS-60, strongly expressing murine CSF-1R, differentiated into monocyte/macrophages upon CSF-1 stimulation and almost totally lost its erythroid potentiality. We also observed that NFS-60 but not FDCP-Mix cells could grow in response to stem cell factor, (SCF), although both cell lines express relatively high amounts of SCF receptors. This suggests that SCF-R and CSF-1R signalling pathways share at least one component that may be missing or insufficiently expressed in FDCP-Mix cells. Taken together, these results suggest that human CSF-1R can use the SCF-R signalling pathway in murine multipotent cells and thereby favor self-renewal versus differentiation.

L6 ANSWER 6 OF 13 MEDLINE on STN
ACCESSION NUMBER: 91097938 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2268499
TITLE: Interleukin-3.

AUTHOR: Wagemaker G; Burger H; van Gils F C; van Leen R W; Wielenga

JJ

CORPORATE SOURCE: Institute of Radiobiology, Erasmus University, Rotterdam,

The Netherlands.

SOURCE: Biotherapy (Dordrecht, Netherlands), (1990) Vol. 2, No. 4,

pp. 337-45. Ref: 41

Journal code: 8903031. ISSN: 0921-299X.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199102

ENTRY DATE: Entered STN: 29 Mar 1991

Last Updated on STN: 29 Mar 1991 Entered Medline: 20 Feb 1991

AB Interleukin-3 (IL-3) is a hemopoietic growth factor involved in the survival, proliferation and differentiation of multipotent hemopoietic cells. In five mammalian species, including man, the gene encoding IL-3 has been isolated and expressed to yield the mature recombinant proteins. The human IL-3 gene encodes a protein of 133 amino acids with two conserved cysteine residues and 2 potential N-linked glycosylation sites; human native IL-3 has not been characterized. Comparison of the IL-3 genes revealed a more rapid evolutionary divergence than has been observed for other hemopoietic growth factors, and, hence, a more pronounced species specificity of the functional proteins was found. In agreement with its stimulatory action on immature multipotent cells, the in vivo actions of homologous recombinant IL-3 in

nonhuman primates include a highly increased production of blood cells along the neutrophilic, eosinophilic and basophilic granulocyte as well as the monocyte, red cell and platelet lineages.

L6 ANSWER 7 OF 13 MEDLINE on STN ACCESSION NUMBER: 83113658 MEDLINE DOCUMENT NUMBER: PubMed ID: 7154710

TITLE: Differentiation restriction in the

neutrophil-granulocyte, macrophage, eosinophil-granulocyte pathway: analysis by equilibrium density centrifugation. Guimaraes J E; Francis G E; Bol S J; Berney J J; Hoffbrand

AUTHOR: Guimaraes J E; Francis G E; Bol S J; Berney J J; Hoffbra

A V

SOURCE: Leukemia research, (1982) Vol. 6, No. 6, pp. 791-800.

Journal code: 7706787. ISSN: 0145-2126.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198303

ENTRY DATE: Entered STN: 18 Mar 1990

Last Updated on STN: 18 Mar 1990 Entered Medline: 24 Mar 1983

Bone marrow culture techniques and equilibrium density centrifugation of AB human bone marrow cells were used to analyse the neutrophil-granulocyte, macrophage and eosinophil-granulocyte progenitor hierarchy. density of progenitor cells changes as cells differentiate down the granulocyte-macrophage pathway and this allows the construction of a density 'map' of the points at which differentiation decisions are made. Unipotent progenitors, neutrophil-granulocyte (G), monocyte-macrophage (M), eosinophil-granulocyte (Eo), are more dense than bi- and tripotent progenitors (GM and EoGM) and have a lower 7-day proliferative capacity (assessed as the clone size achieved in maximally stimulated agar cultures). Experiments in which marrow cells were separated on a basis of their density and either cultured in agar immediately or after an interval of 6 days in suspension culture, were performed to establish the density of the cells which give rise to each type of progenitor, i.e. to investigate parent-progeny relationships. In each case the parent cells were of lower density than the unipotent or bipotent progenitor in question. The ability to separate, at least partially, unipotent, bipotent and multipotent cells of closely related lineages is important since it facilitates studies of the intracellular events taking place as restriction of the cell's differentiation options takes place.

L6 ANSWER 8 OF 13 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN:

ACCESSION NUMBER: 2004:280064 BIOSIS DOCUMENT NUMBER: PREV200400280873

TITLE: Interleukin-1 beta (IL-1beta) induces tumor necrosis factor

alpha (TNF-alpha) expression on mouse myeloid

multipotent cell line 32D cl3 and inhibits their proliferation

inhibits their proliferation.

AUTHOR(S): Ledesma, Edgar; Martinez, Ignacio; Cordova, Yolanda;

Rodriguez-Sosa, Miriam; Monroy, Alberto; Mora, Lourdes; Soto, Isabel; Ramos, Gerardo; Weiss, Benny; Osorio,

Edelmiro Santiago [Reprint Author]

CORPORATE SOURCE: Lab L324, Fac Estudios Super Zaragoza, Campus 2, Batalla 5

Mayo S-N, Iztapalapa, DF, 09230, Mexico

edelmiro@servidor.unam.mx

SOURCE: Cytokine, (April 21 2004) Vol. 26, No. 2, pp. 66-72. print.

ISSN: 1043-4666 (ISSN print).

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 9 Jun 2004

Last Updated on STN: 9 Jun 2004

Interleukin-1 alpha (IL-1alpha) and beta (IL-1beta) are well known factors AB that stimulate hematopoiesis, nevertheless there are reports that show that they can also inhibit this activity. While both IL-lalpha and IL-1beta induce the expression of hematopoietic cytokines, such as growth factors and their receptors on myeloid cells, helping thus to regulate hematopoiesis, it is not known if their inhibitory activity is also mediated through the induction of other specific cytokines. In this work we show that recombinant human IL-1beta (rhIL-1beta) inhibits the proliferation of a mouse IL-3-dependent myeloid multipotent cell line (32D cl3), without inducing its differentiation We show that rhIL-1beta induces in 32D cl3 cells the expression of the tumor necrosis factor alpha (TNF-alpha) gene. a well known growth inhibitor. and that the rhIL-1beta growth inhibition property oil 32D cl3 cells is partially due to this secreted TNF-alpha, hinting thus that the inhibition of hematopoiesis by IL-1 is mediated through other induced cytokines. Copyright 2004 Elsevier Ltd. All rights reserved.

L6 ANSWER 9 OF 13 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2001:568901 BIOSIS DOCUMENT NUMBER: PREV200100568901

TITLE: Distinct and regulated expression of Notch receptors in

hematopoietic lineages and during myeloid

differentiation.

AUTHOR(S): Jonsson, Jan-Ingvar [Reprint author]; Xiang, Zou;

Pettersson, Monica; Lardelli, Michael; Nilsson, Gunnar

CORPORATE SOURCE: Department of Laboratory Medicine, Lund University,

University Hospital MAS, Entrance 78:3, S-205 02, Malmo,

Sweden

Jan-Ingvar.Jonsson@molmed.mas.lu.se

SOURCE: European Journal of Immunology, (November, 2001) Vol. 31,

No. 11, pp. 3240-3247. print. CODEN: EJIMAF. ISSN: 0014-2980.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 12 Dec 2001

Last Updated on STN: 25 Feb 2002

Hematopoietic development is a delicate balance of cell fate decisions in AB multipotent cells between self-renewal and differentiation. In multiple developmental systems, the Notch receptors are important factors regulating these processes. Hematopoietic progenitor cells have been shown to express Notch1, and studies with an activated intracellular form has revealed a functional role. To assess the function of other Notch members in hematopoiesis, we investigated the expression pattern of Notch1, Notch2, and Notch3 in hematopoietic lineages at the level of RNA and protein. We demonstrate that Notch1 and Notch2 are expressed in multiple lineages, and that Notch1 in particular appears to be regulated during myeloid differentiation. Notch1 was up-regulated and expressed at high levels in adherent macrophages. Mast cells expressed only low levels of Notch1 mRNA whereas Notch2 mRNA was highly expressed. In addition we could detect Notch3 mRNA and protein in cell lines representing mast cell progenitors. These expression patterns imply that the different Notch genes may have very distinct functions during hematopoiesis, and that Notch3 could be a specific regulator of mast cell development. The finding that Notch1 was up-regulated in the adherent cells developing from a multipotent progenitor cell line suggests that this protein may posses dual functions in hematopoiesis, i.e. at the stage of cell fate decision, and at the maturation stage of monocytes when adhesion to the specific microenvironment is accomplished.

L6 ANSWER 10 OF 13 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:23934 BIOSIS DOCUMENT NUMBER: PREV200000023934

TITLE: Differential activity of glycosaminoglycans on

colony-forming cells from cord blood. Preliminary results. Da Prato, Iana; Valentini, Paola; Testi, Rossana; Volpi,

AUTHOR(S): Da Prato, Iana; Valentini, Paola; Testi, Rossana; Volpi,

Nicola [Reprint author]; Conte, Angela; Petrini, Mario

CORPORATE SOURCE: Department of Animal Biology, Biological Chemistry Section,

University of Modena, Via Berengario 14, 41100, Modena,

Italy

SOURCE: Leukemia Research, (Nov., 1999) Vol. 23, No. 11, pp.

1015-1019. print.

CODEN: LEREDD. ISSN: 0145-2126.

DOCUMENT TYPE:

Article

LANGUAGE:

English

ENTRY DATE:

Entered STN: 29 Dec 1999

Last Updated on STN: 31 Dec 2001

Heparin, heparan sulfate and chondroitin sulfate were evaluated for their possible role on proliferation and differentiation of hematological precursor cells from cord blood. For these purposes, different concentrations of glycosaminoglycans were added to methyl-cellulose in colony assay performed with human cord blood derived A volume of 10 mug/ml heparin induces a significant increase of cells. both granulocyte-monocyte and granulocyte colonies, and a decrease of erythroid-colonies, more evident in the presence of 100 mug/ml. Heparan sulfate-treatment induces a significant increase of all granulocyte-monocyte colonies derived from CFU-granulocytemonocyte, CFU-granulocyte and CFU-monocyte precursors. A significant decrease of multipotent cells was also observed. On the other hand, chondroitin sulfate induces an increase of granulocyte-colonies and a decrease of erythroid-colonies. Glycosaminoglycans with different structure may be useful to increase the number of specific colonies. The selective and differential binding of glycosaminoglycans with several growth factors and the regulation of their

L6 ANSWER 11 OF 13 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on

STN

ACCESSION NUMBER:

activities is discussed.

1993:339305 BIOSIS PREV199396036305

DOCUMENT NUMBER: TITLE:

Expression of human colony-stimulating factor-I (CSF-1) receptor in murine pluripotent hematopoietic NFS-60 cells

induces long-term proliferation in response to CSF-1

without loss of erythroid differentiation

potential.

AUTHOR (S):

Bourette, Roland P.; Mouchiroud, Guy; Ouazana, Roland; Morle, François; Godet, Jacqueline; Blanchet, Jean-Paul

[Reprint author]

CORPORATE SOURCE:

Centre Genetique Molecularie Cellulaire, UMR CNRS No. 106, Univ. Claude Bernard Lyon I, Bat 741, 43 Boulevard du 11

Novembre 1918, 69622 Villeurbanne Cedex, France Blood, (1993) Vol. 81, No. 10, pp. 2511-2520.

CODEN: BLOOAW. ISSN: 0006-4971.

DOCUMENT TYPE:

Article

LANGUAGE:

SOURCE:

English

ENTRY DATE:

Entered STN: 26 Jul 1993

Last Updated on STN: 3 Jan 1995

AB NFS-60 and FDCP-Mix cells are interleukin-3-dependent multipotent hematopoietic cells that can differentiate in vitro into mature myeloid and erythroid cells. Retrovirus-mediated transfer of the human colony-stimulating factor-1 (CSF-1) receptor gene (c-fms) enabled NFS-60 cells but not FDCP-Mix cells to proliferate in response to CSF-1. The phenotype of NFS-60 cells expressing the human CSF-1 receptor (CSF-1R) grown in CSF-1 did not grossly differ from that of original NFS-60 as assessed by cytochemical and surface markers. Importantly, these cells retained their erythroid potentiality. In contrast, a CSF-1-dependent variant of NFS-60, strongly expressing murine CSF-1R, differentiated into

monocyte/macrophages upon CSF-1 stimulation and almost totally lost its erythroid potentiality. We also observed that NFS-60 but not FDCP-Mix cells could grow in response to stem cell factor, (SCF), although both cell lines express relatively high amounts of SCF receptors. This suggests that SCF-R and CSF-1R signalling pathways share at least one component that may be missing or insufficiently expressed in FDCP-Mix cells. Taken together, these results suggest that human CSF-1R can use the SCF-R signalling pathway in murine multipotent cells and thereby favor self-renewal versus differentiation.

L6 ANSWER 12 OF 13 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on

STN

ACCESSION NUMBER: 1991:939 BIOSIS

DOCUMENT NUMBER: PREV199191000939; BA91:939

TITLE: INTERLEUKIN-3.

AUTHOR(S): WAGEMAKER G [Reprint author]; BURGER H; VAN GILS F C J M;

VAN LEEN R W; WIELENGA J J

CORPORATE SOURCE: INST RADIOBIOL, ERASMUS UNIV, C/O ITRI-TNO PO BOX 5815,

2280 HV RIJSWIJK, NETH

SOURCE: Biotherapy (Tokyo), (1990) Vol. 2, No. 4, pp. 337-346.

ISSN: 0914-2223.

DOCUMENT TYPE: Article FILE SEGMENT: BA LANGUAGE: ENGLISH

ENTRY DATE: Entered STN: 8 Dec 1990

Last Updated on STN: 8 Dec 1990

Interleukin-3 (IL-3) is a hemopoietic growth factor involved in the AB survival, proliferation and differentiation of multipotent hemopoietic cells. In five mammalian species, including man, the gene encoding IL-3 has been isolated and expressed to yield the mature recombinant proteins. The human IL-3 gene encodes a protein of 133 amino acids with two conserved cysteine residues and 2 potential N-linked glycosylation sites; human native IL-3 has not been characterized. Comparison of the IL-3 genes revealed a more rapid evoluntionary divergence than has been observed for other hemopoietic growth factors, and, hence, a more pronounced species specificity of the functional proteins was found. In agreement with its stimulatory action on immature multipotent cells, the in vivo actions of homologous recombinant IL-3 in nonhuman primates include a highly increased production of blood cells along the neutrophilic, eosinophilic and basophilic granulocyte as well as the monocyte, red cell and platelet lineages.

L6 ANSWER 13 OF 13 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on

STN

ACCESSION NUMBER: 1983:297104 BIOSIS

DOCUMENT NUMBER: PREV198376054596; BA76:54596

TITLE: DIFFERENTIATION RESTRICTION IN THE NEUTROPHIL

GRANULOCYTE MACROPHAGE EOSINOPHIL GRANULOCYTE PATHWAY

ANALYSIS BY EQUILIBRIUM DENSITY CENTRIFUGATION.

AUTHOR(S): GUIMARAES J E [Reprint author]; FRANCIS G E; BOL S J L;

BERNEY J J; HOFFBRAND A V

CORPORATE SOURCE: DEP HAEMATOL, ROYAL FREE HOSP, POND ST, LONDON NW3 2QG, UK

SOURCE: Leukemia Research, (1982) Vol. 6, No. 6, pp. 791-800.

CODEN: LEREDD. ISSN: 0145-2126.

DOCUMENT TYPE: Article FILE SEGMENT: BA LANGUAGE: ENGLISH

AB Bone marrow culture techniques and equilibrium density centrifugation of human bone marrow cells were used to analyse the neutrophil-granulocyte, macrophage and eosinophil-granulocyte progenitor hierarchy. Buoyant density of progenitor cells changes as cells differentiate down the granulocyte-macrophage pathway, and this allows the construction of a density map of the points at which differentiation decisions are

made. Unipotent progenitors, neutrophil-granulocyte (G), monocyte -macrophage (M), eosinophil-granulocyte (Eo), are more dense than bi- and tripotent progenitors (GM and EoGM) and have a lower 7-day proliferative capacity (assessed as the clone size achieved in maximally stimulated agar cultures). Experiments in which marrow cells were separated on a basis of their density and either cultured in agar immediately or after an interval of 6 days in suspension culture, were performed to establish the density of the cells which give rise to each type of progenitor, i.e., to investigate parent-progeny relationships. In each case the parent cells were of lower density than the unipotent, bipotent and multipotent in question. The ability to separate, at least partially, unipotent, bipotent and multipotent cells of closely related lineages is important since it facilitates studies of the intracellular events taking place as restriction of the cell's differentiation options take place.

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                   KUWANA SATOKO/IN
E14
                   KUWANA SHINICHI/IN
E15
                   KUWANA SHINZO/IN
E16
                   KUWANA TAKAAKI/IN
                   KUWANA TAKAO/IN
E17
            1
           . 7
E18
                   KUWANA TAKASHI/IN
E19
            1
                   KUWANA TAKAYUKI/IN
E20
            9
                   KUWANA TAKESHI/IN
            1
E21
                   KUWANA TAKESHI C O JAPAN OXYGE/IN
            1
                 KUWANA TAKKAAKI/IN
E22
E23
            1
                   KUWANA TAKUYA/IN
E24
             1
                   KUWANA TERUAKI/IN
E25
             9
                   KUWANA TERUHISA/IN
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=> S (E3) AND (MONOCYTE MULTIPOTENT CELL)
```

5 "KUWANA MASATAKA"/IN

43545 MONOCYTE

31293 MONOCYTES

53995 MONOCYTE

(MONOCYTE OR MONOCYTES)

2059 MULTIPOTENT

2165118 CELL

1888964 CELLS

2857191 CELL

(CELL OR CELLS)

O MONOCYTE MULTIPOTENT CELL

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1 · · · ·
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(MONOCYTE (W) MULTIPOTENT (W) CELL)
L1
             0 ("KUWANA MASATAKA"/IN) AND (MONOCYTE MULTIPOTENT CELL)
=> S (E3) AND (MONOCYTE )
             5 "KUWANA MASATAKA"/IN
         43545 MONOCYTE
         31293 MONOCYTES
         53995 MONOCYTE
                  (MONOCYTE OR MONOCYTES)
L2
             1 ("KUWANA MASATAKA"/IN) AND (MONOCYTE)
=> DIS L2 1 TI
     ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
L2
ΤI
     Monocyte-origin multipotent cell (MOMC)
=> E KODAMA HIROAKI/IN 25
                   KODAMA HIDYO/IN
E1
             1
E2
             1
                   KODAMA HIRO/IN
            27 --> KODAMA HIROAKI/IN
E3
                   KODAMA HIROBUMI/IN
£4
            1
E5
            12
                   KODAMA HIROFUMI/IN
            2
E6
                   KODAMA HIROHISA/IN
E7
            10
                   KODAMA HIROKAZU/IN
E8
            42
                   KODAMA HIROKI/IN
            2
                   KODAMA HIROMI/IN
E9
            1
E10
                   KODAMA HIROMICHI/IN
                   KODAMA HIROMITSU/IN
E11
            1
E12
            4
                   KODAMA HIRONOBU/IN
           57
                   KODAMA HIRONORI/IN
E13
           11
                   KODAMA HIROO/IN
E14
                   KODAMA HIROOMI/IN
            1
E15
           212
                   KODAMA HIROSHI/IN
E16
E17
            1
                   KODAMA HIROSKI/IN
E18
             2
                   KODAMA HIROTAKA/IN
            7
                   KODAMA HIROTATSU/IN
E19
                   KODAMA HIROTO/IN
E20
            1 .
                   KODAMA HIROTOSHI/IN
E21
            2
E22
            5
                   KODAMA HIROTSUGU/IN
E23
            1
                   KODAMA HIROTUGU/IN
E24
            2
                   KODAMA HIROYA/IN
E25
            10
                   KODAMA HIROYOSHI/IN
=> S (E3) AND (MONOCYTE )
            27 "KODAMA HIROAKI"/IN
         43545 MONOCYTE
         31293 MONOCYTES
         53995 MONOCYTE
                 (MONOCYTE OR MONOCYTES)
L3
             2 ("KODAMA HIROAKI"/IN) AND (MONOCYTE)
=> DIS L3 1 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y) / N:Y
     ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:
                         2004:802848 CAPLUS
DOCUMENT NUMBER:
                         141:319983
TITLE:
                         Monocyte-origin multipotent cell (MOMC)
INVENTOR(S):
                         Kuwana, Masataka; Kodama, Hiroaki
PATENT ASSIGNEE(S):
                         Keio University, Japan
SOURCE:
                         PCT Int. Appl., 75 pp.
                         CODEN: PIXXD2
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DOCUMENT TYPE:

Patent Japanese

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

P	PAT	ENT	NO.			KIN	D -	DATE		•	APPL:	ICAT:	ION I	NO.		D	ATE	
W	WO 2004083414			A1 20040930			WO 2004-JP3680				20040318							
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DΕ,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	KE,	KG,	ΚP,	KR,	KZ,	LC,	LK,
			LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	NO,
			ΝZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,
			TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	ΥU,	ZA,	ZM,	ZW	
		RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,
			BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,
			·ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	NL,	PL,	PT,	RO,	SE,	SI,
			SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,
			TD,	TG														
J	JP 2004275145				Α		20041007 JP 2003-74573						20030318					
J	P	3762	975			B2		2006	0405									
E	P	1605	040			A1		2005	1214		EP 20	004-	7216	66		2	0040	318
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ĮΤ,	LI,	LU,	NL,	SE,	MC,	PT,
			ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	PL,	SK
J	Ρ	2006	01474	41		Α		2006	0119		JP 20	005-2	2288	60		2	0050	805
US 2006171928				A1	20060803			US 2005-549707				20051027						
PRIORI	PRIORITY APPLN. INFO.:								JP 2003-74573					A 20030318				
										1	WO 2	004-	JP36	80	1	W 2	0040	318
A D C M D A	am.																	

ABSTRACT:

It is intended to provide a multipotent cell which can be non-invasively, conveniently and stably supplied in a necessary and sufficient amount, is free from any rejection troubles in cell transplantation, and is capable of differentiating into various cells including mesenchymal cells such as bone, cartilage, skeletal muscle and fat, vascular endothelial cells, cardiac muscle cells and nerve cells; mesenchymal cells, vascular endothelial cells, cardiac muscle cells and nerve cells differentiated from the multipotent cell; and a therapeutic agent and a therapeutic method using the same as the active ingredient. Peripheral blood monocyte cells (PBMC) are cultured on a fibronectin-coated plastic plate for 7 to 10 days. The resultant fibroblast-like cells are circulatory CD14+ monocyte-origin cells showing a characteristic phenotype CD14+CD45+CD34+I type collagen+. cells are capable of differentiating into mesenchymal cells such as bone, cartilage, skeletal muscle and fat, vascular endothelial cells, cardiac muscle cells and nerve cells under definite culture conditions.

REFERENCE COUNT: THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L3 2 IBIB IABS

THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y) / N:Y

ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:140699 CAPLUS DOCUMENT NUMBER: 118:140699

TITLE: Macrophage-monocyte colony-stimulating

factor (M-CSF) for treatment of osteopetrosis

Kodama, Hiroaki INVENTOR(S):

PATENT ASSIGNEE(S): Morinaga Milk Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04178334 PRIORITY APPLN. INFO.:	A	19920625	JP 1990-304538 JP 1990-304538	19901109 19901109

ABSTRACT:

Human M-CSF (I) stimulates the growth of damaged bone cells and is effective for the treatment of osteopetrosis. I subunit amino acid sequences are given; I has a mol. weight of 70,000-90,000. I was isolated from urine samples of healthy humans. The efficacy of I was tested with murine models of osteopetrosis.

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